

J. Akiyama  
U.S. Serial No. 09/992,362  
Page 7 of 11

### REMARKS

Claims 1-9, 11-14, and 16-24 are pending in the application. Claims 17-24 were withdrawn from consideration as being drawn to non-elected subject matter. Claims 1, 2, and 11 have been amended to overcome the rejections under 35 USC §112, second paragraph, but have not been amended substantively. The amendments are fully supported by the application as originally filed.

Claims 1-9 and 11-14 were rejected under 35 USC §112, second paragraph, as being indefinite. Claim 1 has been amended to delete the phrase "to record," thereby obviating the rejection. As amended, claim 1 recites a step of encrypting the information using the encryption information which was reproduced in the second format. As amended, claim 2 specifies that information is recorded in a first format in the data recording region, and encryption information is recorded in a second format in the encryption data recording region. In other words, the second format is used to record the encryption information. Claim 11 has been amended to delete the word "sole," thereby reciting a "recording means." It is believed that the above amendments overcome all of the outstanding rejections under 35 USC §112, second paragraph.

According to Applicant's claimed invention, the same recording system is used for (1) recording user information onto a data recording region 12 of a recording medium, and (2) recording encryption information onto an encryption data recording region 11 (see FIG. 1). To prevent rewriting of the encryption information, the recording format of the encryption information and the recording format of the user information are different.

Independent claims 1, 2, 11, and 16 recite that the first format and the second format are different from each other "in at least one of recording density, error correcting system, and defect management system" (see, e.g., claim 1, lines 5-6).

J. Akiyama  
U.S. Serial No. 09/992,362  
Page 8 of 11

According to the Applicant's claimed invention, it is possible to record and reproduce information using encryption information provided on the recording medium. As claimed, the encryption information is recorded in a different format from that used by a user to record information in the data recording region. Therefore, the encryption information cannot be copied, so it is possible to prevent unauthorized copying of copyrighted or secret information (see specification at page 8, last paragraph to page 9, second paragraph).

Moreover, the encryption information is formed at plural different positions in the circumferential direction, and is recorded in a format by which the encryption information can be reproduced with better quality. Further, an apparatus for manufacturing the recording medium can be manufactured at lower cost and in a shortened time frame, as compared to the prior art.

Claims 1-3 (and apparently claim 16) were rejected under 35 USC §102(b) as being anticipated by U.S. Patent 6,633,534 to Tosaki et al. ("Tosaki"). Claims 4-7, 9, and 11-14 were rejected under 35 USC §103(a) as being unpatentable over Tosaki. Claim 8 was rejected under 35 USC §103(a) as being unpatentable over Tosaki in view of U.S. Patent 6,343,282 to Oshim et al. Claims 1-9, 11-14, and 16 were rejected under 35 USC §103(a) as being unpatentable over European Publication EP 0 989 553 to Hirata et al. ("Hirata") in view of European Publication 0 610 055 to Komma et al. ("Komma"). These rejections are respectfully traversed.

Tosaki does not teach or suggest that a recording format of encryption information and a recording format of user information are different from each other "in at least one of recording density, error correcting system, and defect management system," as recited in the independent claims.

Referring to FIG. 1A of Tosaki, a DVD 1 includes a lead-in area 4 and a data area 5.

In the Office Action of 10/18/2005, it was alleged that the data area 5 corresponds to a "first format," the lead-in area 4 corresponds to a "second format," and the "jitter" disclosed in Tosaki refers to the recording format (see Office Action at pages 4-5).

J. Akiyama  
U.S. Serial No. 09/992,362  
Page 9 of 11

In Tosaki, the word "jitter" refers to either (1) the amplitude of a pulse of a pulse train, (2) an irregular fluctuation of a parameter over time, or (3) a value of the fluctuation. The value of this fluctuation is indicated either by the value itself or the ratio of this value to a reference value.

However, there is no teaching or suggestion in Tosaki of different "recording formats" of a data recording region and an encryption data recording region, as provided in the Applicant's claimed invention. For example, as stated on page 16, last paragraph of the specification: "the recording format indicates recording density (linear density, track density), modulation system, error correcting system, and defect management system." In other words, the "jitter" disclosed in Tosaki does not read on the Applicant's claimed "recording format."

Further, Tosaki does not teach or suggest that a recording format of encryption information and a recording format of user information are different from each other "in at least one of recording density, error correcting system, and defect management system," as recited in the independent claims.

Moreover, in Tosaki, key information is stored as prepits (see column 2, lines 48-49), and the prepits are formed by means of an injection molding process or a process using laser rays (see column 2, lines 62-63). This implies that disks formed according to Tosaki do not have key information different from one another, i.e., the disks have the same key information and nominal encryption. In contrast, the Applicant's claimed invention provides encryption information in a second format, which is different from a first format used to record user information, and enables different types of encryption information to be provided on different disks.

For at least the reasons discussed above, the Tosaki reference does not anticipate or otherwise render obvious the Applicant's claimed invention.

J. Akiyama  
U.S. Serial No. 09/992,362  
Page 10 of 11

Regarding claims 4 and 12, in Tosaki, for the purpose of raising the detecting precision of signals at the prepits, the width of each prepit is set based on groove width and track pitch (see column 3, lines 3-11). However, there is no teaching or suggestion of a second format which reproduces information with a better reproduction quality than a first format.

Regarding the rejection of independent claims 1, 2, 11, and 16 over the combination of Hirata in view of Komma, as indicated in the Amendment filed on June 24, 2005, the Hirata reference does not teach or suggest that user information and encryption information are recorded in different formats, where the formats differ from each other in at least one of recording density, error correcting system, and defect management system.

In Hirata, the characteristic information DI can include either a unique identifier or an identifier so as to distinguish a specific disk from other disks (see paragraphs 0062 to 0065). However, Hirata does not teach or suggest that encryption information is recorded in a format different from that used by a user to record information in a data recording region.

Hirata also does not teach or suggest an "encryption data recording region" separate from the data recording region, as recited in claims 1, 2, 11, and 16. Instead, according to Hirata, the characteristic information can be recorded in "any arbitrary recording area" (paragraph 0064).

The Komma reference was cited merely for teaching "two regions with different density" (see page 8 of the Final Office Action, citing column 14, line 55 to column 15, line 15 of Komma). However, Komma does not remedy the deficiencies of Hirata, and the proposed combination does not teach or suggest recording user information in a first format and encryption information in a second format, where the formats differ from each other in at least one of recording density, error correcting system, and defect management system.

For at least the reasons discussed above, Komma cannot be combined with Hirata to somehow produce the Applicant's claimed invention.

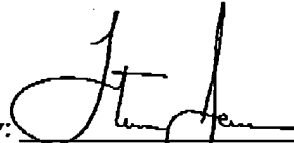
J. Akiyama  
U.S. Serial No. 09/992,362  
Page 11 of 11

It is believed that the claims are in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,

Date: January 5, 2006

By:



Steven M. Jensen  
(Reg. No. 42,693)

Edwards Angell Palmer & Dodge  
P.O. Box 55874  
Boston, MA 02205

Phone: (617) 439-4444

Customer No. 21874